

WHAT IS CLAIMED IS:

1. A router for guiding a plurality of conductors, the router including:
a routing unit; and
a plurality of conductor paths directed through the routing unit, the
conductor paths adapted to receive the plurality of conductors, the routing unit and the
5 plurality of conductor paths formed by a three-dimensional fabrication process.
2. A router according to claim 1 wherein the three-dimensional
fabrication process comprises a three-dimensional additive process.
3. A router according to claim 1 wherein the three-dimensional
5 fabrication process comprises a three-dimensional subtractive process.
4. A router according to claim 1 wherein the routing unit comprises a
block of dielectric material.
- 10 5. A router according to claim 1 wherein the routing unit comprises a
block of thermally conductive material.
6. A hybrid conductor/board comprising:
a router having a routing unit and a plurality of conductor paths
directed through the routing unit, the routing unit and conductor paths formed by a
three-dimensional fabrication process; and
5 a plurality of conductors routed through the conductor paths.
7. A hybrid conductor/board according to claim 6 wherein at least one of
the plurality of conductors comprises an electrical conductor.
- 10 8. A hybrid conductor/board according to claim 6 wherein at least one of
the plurality of conductors comprises an optical conductor.
9. A hybrid conductor/board according to claim 6 wherein at least one of
the plurality of conductors comprises a fluid conductor.

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10. A hybrid conductor/board according to claim 6 wherein the three-dimensional fabrication process comprises a three-dimensional additive process.

5 11. A hybrid conductor/board according to claim 6 wherein the three-dimensional fabrication process comprises a three-dimensional subtractive process.

12. A hybrid conductor/board according to claim 6 wherein:
the routing unit is further formed with oppositely disposed planar surfaces; and
the conductors extend from one planar surface to the other planar surface, and include respective opposite ends terminated on each of the respective planar surfaces to form respective first and second contact arrays.

13. A hybrid conductor/board according to claim 12 wherein:
the first contact array has a contact-to-contact spacing substantially greater than that of the second contact array.

14. An automatic test equipment interface for funneling signal conductors from a plurality of pin electronics boards to one or more devices-under-test, the interface including:

5 a hybrid conductor/board comprising
a signal router having a routing unit and a plurality of open-ended conductor paths directed through the routing unit, and
a plurality of signal conductors routed through the conductor paths, the hybrid cable/board having first and second planar surfaces, the first planar surface adapted for coupling to the pin electronics boards; and
10 a device interface board for coupling to the second planar surface and adapted to connect to the one or more devices-under-test.

15 15. An automatic test equipment interface according to claim 14 wherein the plurality of signal conductors are of equal length.

16. Automatic test equipment for testing one or more devices-under-test,
the automatic test equipment including:
a computer workstation; and
a testhead coupled to the computer workstation and including
5 a plurality of pin electronics boards, and
an interface for funneling signal conductors from the pin
electronics boards to the one or more devices-under-test, the interface including
a hybrid conductor/board comprising
a signal router having a routing unit and a
10 plurality of conductor paths directed through the routing unit, and
a plurality of signal conductors routed through
the conductor paths, the hybrid cable/board having first and second planar surfaces,
the first planar surface adapted for coupling to the pin electronics boards; and
a device interface board for coupling to the second
15 planar surface and adapted to connect to the one or more devices-under-test.